REMARKS

The claims are 12-27, 35, 38 and 45-55 with claims 12, 13, 18, 23, 35, 45 and 55 being independent. The claims have been amended to better recite the intended invention and reconsideration thereof is expressly requested.

In response to the outstanding restriction requirement, nonelected claims 1-11, 28-34, 36, 37 and 39-44 have been cancelled without prejudice to the filing of a division directed to their subject matter.

Claim 55 has been amended to delete the phrase deemed unclear by the Examiner in the outstanding action.

Claim 15, deemed allowable, has now been rewritten in independent form.

Claims 45, 46, 53 and 55 were rejected as anticipated by Schmitt '649. Claims 23-25, 35, 48, 49 and 51 were deemed obvious over Schmitt '649. The balance of the claims were deemed obvious over Schmitt, combined with either Ohta, Smith, JP '129 or JP '820. The grounds of rejection are respectfully traversed.

Regarding the rejection of independent claims 45 and 55, U.S. Patent No. 6.099,649 to Schmitt discloses providing a cooling means on the downstream of a hot trap or a vacuum pump to allow it to function as a cold trap. However, the cooling means defined in present claims 45 and 55 protects a vacuum seal, such as an O-ring (see page 68, line 24 to page 69, line 5), provided in the vicinity of the chemical reaction causing means and cannot exhibit its function when located at the position referred to in Schmitt. Schmitt neither discloses nor suggests providing a cooling means in the vicinity of a chemical reaction causing means (claim 45) or between a processing space and an exhaust means (claim 55).

Regarding the rejection of claims 23 and 35, the Examiner has alleged that U.S. Patent No. 6,099,649 to Schmitt suggests that the recovery means-cold trap should be following the hot trap ("the chemical reaction causing means" in the present claimed invention). However, the recovery means defined in instant claim 23 is quite different in function and action from the cooling means referred to by Schmitt. Therefore, Schmitt neither discloses nor suggests the present invention defined in claim 23. Further, Schmitt neither discloses nor suggests the combined feature recited in amended claim 35.

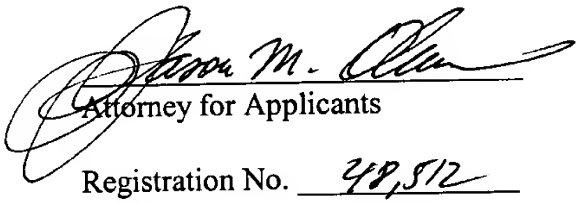
Regarding the rejection of claim 12, the Examiner has stated that U.S. Patent No. 6,099,649 to Schmitt does not expressly disclose the hot trap to be comprised of a heater made of a filament. Schmitt, however, neither discloses nor suggests the key feature recited in claim 12 of providing inside the trap means a filament comprised of a metal or an alloy comprising, as a main component, at least one of tungsten, molybdenum and rhenium. Therefore, even when Schmitt is combined with Ohta (U.S. Patent No. 5,209,182), there is no prima facie case of obviousness.

With regard to rejection of claim 18, the Examiner has alleged that U.S. Patent No. 5,217,545 to Smith discloses a heater containing phosphorous and silicon. However, the member "heater" referred to by the Examiner is actually an electric heater element sheathing, which is a member quite different from a heater, such as a filament. Accordingly, even when Smith is combined with Schmitt '649, they neither disclose nor suggest the present claimed invention.

Wherefore, Applicants submit that none of the references, whether considered alone or in combination, disclose or suggest the present claimed invention nor render it unpatentable.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



Attorney for Applicants

Registration No. 48,512

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

--15. (Amended) A processing apparatus having a processing space for processing a substrate or a film therein and an exhaust means for exhausting a gas from the processing space, comprising means provided between the processing space and the exhaust means, for causing a chemical reaction in a non-reacted gas and/or a by-product during processing of the substrate or the film, wherein the means comprises a heat generating member comprising phosphorous (P) atoms, [The processing apparatus according to claim 13] wherein the amount of phosphorous atoms contained in the heat generating member is 0.1% or more in an atomic composition ratio relative to total atomic components constituting the heat generating member.

35. (Amended) A processing apparatus having a processing chamber and an exhaust means for exhausting a gas from the processing chamber, comprising, in an exhaust path connecting the processing chamber and the exhaust means, a region with a different mean velocity of the gas from that of the processing chamber, and a chemical reaction causing means provided in the region, for causing a chemical reaction in a non-reacted gas and/or a by-product exhausted from the processing chamber, wherein the mean velocity of the gas of the region having the chemical reaction causing means is larger than

the mean velocity of the processing chamber, and wherein the chemical reaction causing means comprises a high-melting metal filament.

45. (Amended) A processing apparatus having a processing space and an exhaust means for exhausting a gas from the processing space, comprising a chemical reaction causing means provided in an exhaust path connecting the processing space and the exhaust means, for causing a chemical reaction in a non-reacted gas and/or a by-product during the processing, and a cooling means disposed in the exhaust path in the vicinity of the chemical reaction causing means and provided on the side of the exhaust means of the chemical reaction causing means.

55. (Amended) A processing apparatus having a processing space and an exhaust means for exhausting a gas from the processing space, comprising a chemical reaction causing means provided in an exhaust path between the processing space in a chamber [having the processing space] and the exhaust means, for causing a chemical reaction in a non-reacted gas and/or a by-product during the processing, and a cooling means provided in at least a part of the exhaust path between the processing space and the exhaust means.--